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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/785,255

Applicant(s)

AGARWAL, GOPAL

Examiner

KHUONG TRAN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 02 January 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 11 is objected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites "... transfers a NACKR packet to the apparatus ", it is unclear as to which 'apparatus' the applicant is referring to. The examiner interprets this claim as follows:

- The apparatus as claimed in claim 9, wherein the apparatus on the RUMP layer of packets transmitting system transfers a NACKR packet to the apparatus **--of a packet receiving system--**, which includes the lost connectionless-oriented data packet depending on information of the NACK packet.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aaltonen (U.S Publication No. 2006/0034313) in view of Willekes et al (U.S Publication No. 2002/0075824 A1).

Regarding claim 1, Aaltonen teaches a method for transferring connectionless-oriented data packets (**9a,b, FIG. 1**) between systems (**8, 3a-c, FIG. 1**) connected to each other through shared media (i.e., LAN, **paragraph 0056, lines 1-7**), the method comprising the steps of:

i) periodically transferring a Sender Report (SR) packet (**END packet, s15, FIG. 3**) from a first Reliable Unicast and Multicast Protocol (RUMP) (**paragraph 0029, lines 9-23**) of a packet transmitting system (**server 7, FIG. 2**) to a second RUMP of a packet receiving system (**receivers 3a-c, FIG. 2**, the SR is sent periodically with each retransmission of the sequence until the whole sequence has been acknowledged by all receivers - **paragraph 0051**), wherein the SR packet comprises information representing connectionless-oriented data packets (**paragraph 0039, lines 1-4**), and wherein the first RUMP and the second RUMP are disposed on an Open System Interconnection (OSI) layer between a transfer layer and an application layer (session layer protocols are always between transfer and application layers);

ii) determining if one or more of the connectionless-oriented data packets are lost based on the information of the SR packet (**paragraph 0041, lines 1-10**).

iii) periodically transferring a Negative Acknowledgement (NACK) packet from the second RUMP to the first RUMP (**paragraph 0041, lines 14-18**) when a periodic poll of a receiver window of the packet receiving system determines that one or more lost connectionless-oriented data packets exist (**paragraph 0041, lines 18-22**), wherein the NACK packet comprises information relating to the one or more lost connectionless-oriented data packets (**paragraph 0035, lines 1-7**); and

iv) transferring a Negative Acknowledgement Reply (NACKR) packet (i.e. packet **B** on data stream **9c, FIG. 5**) from the first RUMP (**8, FIG. 5**) to the second RUMP (**3c, FIG. 5**) when the first RUMP receives the NACK packet from the second RUMP (**paragraph 0043, lines 10-21**), wherein the NACKR packet (i.e. **packet B**) comprises the one or more lost connectionless-oriented data packets (**9c, FIG. 5**).

Aaltonen teaches limitation ii) on determining if one or more packet are lost based on the SR. However, Aaltonen fails to explicitly teach the method includes transferring a Receiver Report (RR) packet from the second RUMP to the first RUMP when the second RUMP receives the SR packet, wherein the RR packet comprises information about at least one of one or more received connectionless-oriented data packets and at least one lost connectionless-oriented data packet. Willekes et al teach a system for distributing file in a wireless communication network. According to the teaching, receiver reports (i.e., **communication packets**) are sent from the second RUMP (i.e., **RMDP client**) to the first RUMP (i.e., **RMDP server, paragraph 0079, lines 6-8**).

Receiver reports (i.e., **communication packets**) are generated by RMDP clients (**receivers, FIG. 4**) for communicating state and signaling session status or error information to the RMDP server (**sender, FIG. 4, paragraph 0082**). FIG. 4 illustrates at step 410, the receivers can respond to the sender request with a success (ACK) or an error status packet info (NACK) (**paragraph 0084, lines 6-8**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teaching of Aaltonen to include transferring a Receiver Report (RR) packet from the second RUMP to the first RUMP when the second RUMP receives the SR packet, wherein the RR packet comprises information about at least one of one or more received connectionless-oriented data packets and at least one lost connectionless-oriented data packet as taught by Willekes et al. One is motivated as such in order to achieve the reliability of data communication between the sender and the receivers (**paragraph 0046, lines 1-4**).

4. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aaltonen (U.S Publication No. 2006/0034313) in view of Willekes et al (U.S Publication No. 2002/0075824 A1) and further in view of Coffman (U.S Publication No. 2004/0160957 A1).

Regarding claim 2, Aaltonen teaches the method as claimed in claim 1, wherein the SR packet comprises information relating to a number of transferred connectionless-oriented data packets (**S14, S15, FIG. 3**, the server sends an END packet comprises information relating to the number of packets transferred as the end of file has been reached). However, Aaltonen and Willekes et al fail to

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explicitly teach the SR packet comprises information relating to a next sequence number. Coffman teaches a system for providing sequencing and delivery acknowledgement over a connectionless oriented network. According to an embodiment disclosed in **FIG. 15**, a sender sends a sender report (i.e., DATA frame 106, FIG. 12) to the receiver. The sender report contains a seqnum field 176 with respect to the next number in the sequence of data (**paragraph 0128**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teachings of Aaltonen and Willekes et al to include information relating to a next sequence number in the sender report as taught by Coffman. One is motivated as such in order to provide a datagram protocol system structure and process using information regarding other data for acknowledgement purposes (**paragraph 0012**).

Regarding claim 3, Aaltonen and Willekes et al teach the method as claimed in claim 1. Willekes et al specifically teach the RR packet comprises information relating to a lowest sequence number of the receiver window which is not received (**paragraph 0084, lines 6-12**; receiver 2 sends a RR packet identifying the packets it did not receive. Hence the RR should include the lowest sequence number of the receiver window which is not received). However, Aaltonen and Willekes et al fail to explicitly teach the RR comprises information relating to a next sequence number, an ACK sequence number, and a bitmap of received connectionless-oriented data packets. Coffman teaches a system for providing sequencing and delivery acknowledgement over a connectionless oriented network. According to the teaching, the system uses the device retry

logic where the receiver sends out a receiver report (**114, FIG. 14**) with a structure format comprising information relating to a next sequence number (**204, FIG. 4, paragraph 0156, lines 1-3**), an ACK sequence number (**202, FIG. 14, paragraph 0155**), and a bitmap of received connectionless-oriented data packets (**206, 210, 214, 218, FIG. 14**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teachings of Aaltonen and Willekes et al to include information relating to a next sequence number, an ACK sequence number, and a bitmap of received connectionless-oriented data packets in the receiver report as taught by Coffman. One is motivated as such in order to minimize the transmissions required from the server (**paragraph 0151**).

Regarding claim 4, Aaltonen and Willekes et al teach the method as claimed in claim 1. Willekes et al specifically teach the NACK packet comprises information relating to a lowest sequence number of the receiver window which is not received (**paragraph 0084, lines 6-12**; receiver 2 sends a NACK packet identifying the packets it did not receive. Hence the NACK should include the lowest sequence number of the receiver window which is not received). However, Aaltonen and Willekes et al fail to explicitly teach the NACK packet comprises information relating to a bitmask of a next lost connectionless-oriented data packet. Coffman teaches a system for providing sequencing and delivery acknowledgement over a connectionless oriented network. According to the teaching, the system uses the device retry logic where the receiver sends out a NACK (**114, FIG. 14**) with a structure format comprising information relating to a

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bitmap of a next lost connectionless-oriented data packets (**204, 208, 212, 216, FIG. 14**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teachings of Aaltonen and Willekes et al to include information relating to a next sequence number, an ACK sequence number, and a bitmap of received connectionless-oriented data packets in the receiver report as taught by Coffman. One is motivated as such in order to minimize the transmissions required from the server (**paragraph 0151**).

Regarding claim 5, Aaltonen and Willekes et al teach the method as claimed in claim 1. Aaltonen teaches the NACKR packet comprises a lowest sequence number of one of the retransmitted connectionless-oriented data packets (i.e. packet **B** on data stream **9c, FIG. 5**, packet **B** comprises the lowest sequence number in the retransmitted sequence). However, Aaltonen and Willekes et al fail to explicitly teach the NACKR comprises information relating to a bitmask of a next retransmission packet. Coffman teaches a system for providing sequencing and delivery acknowledgement over a connectionless oriented network. According to the teaching, the system uses the server retry logic where the sender sends out a NACKR (**114, FIG. 14**) with a structure format comprising information relating to a bitmap of next retransmission packet (**204, 208, 212, 216, FIG. 14**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teachings of Aaltonen and Willekes et al to include information relating to a next sequence number, an ACK sequence number, and a bitmap of received connectionless-oriented data packets in the receiver report as taught by

Coffman. One is motivated as such in order to minimize the transmissions required from the receiver and to conserve battery power for the receiver **(paragraph 0146)**.

5. Claims 6, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Earl (U.S. Publication No. 2003/0233594 A1) in view of Traversat et al (U.S. Publication No. 2002/0152299 A1).

Regarding claim 6, an apparatus **(120a, FIG. 1)** disposed on a Reliable Unicast and Multicast Protocol (RUMP) layer **(paragraph 0003, lines 13-14)** between a transfer layer and an application layer (session layer protocols are always between transfer and application layers) for transferring connectionless-oriented data packets (i.e., UDP, **paragraph 0052, lines 7-9**) between systems **(120a-120n, FIG. 1)** connected to each other through shared media (i.e., **switching fabrics 110a-110b, FIG. 1**), the apparatus comprising:

- a control unit (i.e., **LSS monitor primary 102a, FIG. 1**) that manages transmitting states of clients (i.e. **LSS agents**) depending on an activating state of the clients **(paragraph 0032, lines 5-9)** and transfers data to one or more apparatus on the RUMP layer **(paragraph 0065, lines 1-3)** of corresponding clients when an error occurs in transmission of the connectionless-oriented data packets **(paragraph 0064, lines 5-9)**;
- transmitting/receiving unit **(104a, FIG. 2F)** connected to the control unit **(102a, FIG. 1)** to perform data communication between related clients **(paragraph 0035, lines 5-8)**;

- an identification unit (**i.e., LSS process**) that detects the transmitting states of the clients (**206, FIG. 2B**) and an identification of the clients (**201, FIG. 2B**) based on the data communicated in the transmitting/receiving unit (**paragraph 0044, lines 10-12**).
- a memory (**i.e., relational table 105a, FIG. 2F**) for storing client identification information (**paragraph 0040, lines 6-13**) depending on the activating state of the clients (**206, FIG. 2B, paragraph 0044, lines 28-33**).

Earl discloses the system can transmit and receive packets as illustrated in **FIG. 3E**. However, Earl fails to explicitly teach said memory that also stores initial sequence numbers related to connectionless-oriented data transmission with respect to each client. Traversat et al teach a system for establishing communication channels between peers in a network. According an embodiment, the receiving peers may request retransmission of missed messages. The request retransmissions may include one or more sequence numbers, or alternatively a range of sequence numbers, of messages requested for retransmission from the source sender (**paragraph 0067, lines 4-9**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teaching of Earl to configure the memory unit for storing initial sequence numbers related to the connectionless-oriented data transmission with respect to each client as taught by Traversat et al. One is motivated as such in order to maintain ordering of received messages on a receiving peer (**paragraph 0065, lines 1-3**).

Regarding claim 9, Earl teaches the apparatus (**120n, FIG. 1**) as claimed in claim 6, wherein the control unit (*i.e.*, **receiver's LSS(A) 102e, FIG. 1**) periodically polls a receiver window (**paragraph 0064, lines 18-20**; the receive window is polled for a period of two intervals after each NACK packet is sent) and periodically transfers a Negative Acknowledgement (NACK) packet (*i.e.*, **NAK #5, FIG. 3E**) to an apparatus (*i.e.*, **120a, FIG. 1**) on the RUMP layer (**paragraph 0065, lines 1-3**) of a packet transmitting system (*i.e.*, **sender, FIG. 3A**), which includes information about received connectionless-oriented data packets (**paragraph 0072, lines 3-6**), if the lost connectionless-oriented data packets exist (**paragraph 0072, lines 6-9**).

Regarding claim 11, Earl teaches the apparatus (**120a, FIG. 1**) as claimed in claim 9, wherein the apparatus (**102a, FIG. 1**) on the RUMP layer (**paragraph 0065, lines 1-3**) of packets transmitting system (*i.e.*, **sender, FIG. 3E**) transfers a NACKR packet (*i.e.*, **retransmitted dropped packet**) to the apparatus (*i.e.*, **120e, FIG. 1**), which includes the lost connectionless-oriented data packet depending on information of the NACK packet (**paragraph 0072, lines 7-11**).

6. Claims 7, 8, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Earl (U.S. Publication No. 2003/0233594 A1) in view of Traversat et al (U.S. Publication No. 2002/0152299 A1) and further in view of Coffman (U.S. Publication No. 2004/0160957 A1).

Regarding claim 7, Earl and Traversal et al teach the apparatus (**120a, FIG. 1**) as claimed in claim 6, wherein the control unit (*i.e.*, **sender's LSS(MP) 102a, FIG. 1**) transfers a Sender Report (SR) (*i.e.*, **heartbeat message**) packet

to an apparatus (**120n, FIG. 1**) on the RUMP layer (**paragraph 0065, lines 1-3**) of a packet receiving system (*i.e.*, **receiver, FIG. 3A**). Traversat et al teach the elapsed time of connectionless-oriented data packets are transmitted and received may be monitored by the receiver (**paragraph 0065, line 10-12**) in order to detect timeout for sending out the acknowledgement based on the last sequence of packet received from the source (**paragraph 0065, lines 12-18**). However, Earl and Traversal et al fail to explicitly teach the SR packet includes information of a sequence number of a next connectionless-oriented packet to be transmitted and a number of already transferred connectionless-oriented packets, when connectionless-oriented data packets are transmitted and received. Coffman teaches a system for providing sequencing and delivery acknowledgement over a connectionless oriented network. According to an embodiment disclosed in **FIG. 15**, a sender sends a sender report (*i.e.*, DATA frame 106, **FIG. 12**) to the receiver. The sender report contains a seqnum field 176 with respect to the next number in the sequence of data (**paragraph 0128**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teachings of Earl and Traversal et al to include information relating to a next sequence number in the sender report as taught by Coffman. One is motivated as such in order to provide a datagram protocol system structure and process using information regarding other data for acknowledgement purposes (**paragraph 0012**).

Regarding claim 8, Earl and Traversal et al teach the apparatus (**120n, FIG. 1**) as claimed in claim 6. Earl does not teach the control unit (*i.e.*, **receiver's**

LSS(A) 102e, FIG. 1 transfers a Receiver Report (RR) packet to an apparatus on the RUMP layer (**paragraph 0065, lines 1-3**) of a packet transmitting system (i.e., **sender, FIG. 3A**). However, Traversat et al teach the receiver capable of transmitting a RR including one or more sequence numbers, or alternatively a range of sequence numbers, of messages requested for retransmission from the source sender (**paragraph 0067, lines 4-9**). It would have been obvious to combine the teaching of Traversat et al with Earl 6 to maintain ordering of received messages on a receiving peer (**paragraph 0065, lines 1-3**). The teaching further discloses the elapsed time of connectionless-oriented data packets are transmitted and received may be monitored by the receiver (**paragraph 0065, line 10-12**) in order to detect timeout for sending out the acknowledgement based on the last sequence of packet received from the source (**paragraph 0065, lines 12-18**).

Earl and Traversal do not explicitly teach the RR includes information regarding a next sequence number to be received an ACK sequence number, a lowest sequence number of a receiver window which is not received, and a bitmap of received connectionless-oriented data packets. Coffman teaches a system for providing sequencing and delivery acknowledgement over a connectionless oriented network. According to the teaching, the system uses the device retry logic where the receiver sends out a receiver report (**114, FIG. 14**) with a structure format comprising information relating to a next sequence number (**204, FIG. 4, paragraph 0156, lines 1-3**), an ACK sequence number (**202, FIG. 14, paragraph 0155**), and a bitmap of received connectionless-

oriented data packets (**206, 210, 214, 218, FIG. 14**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teachings of Earl and Traversat et al to include information relating to a next sequence number, an ACK sequence number, and a bitmap of received connectionless-oriented data packets in the receiver report as taught by Coffman. One is motivated as such in order to minimize the transmissions required from the server (**paragraph 0151**).

Regarding claim 10, Earl teaches the apparatus as claimed in claim 9, wherein the NACK packet (i.e., **NAK #5, FIG. 3A**) includes a lowest sequence number of one of the lost connectionless-oriented data packets (**paragraph 0072, lines 3-7**). Earl and Traversat, however, fail to explicitly teach the NACK packet also includes a bitmask of a next lost data packet. Coffman teaches a system for providing sequencing and delivery acknowledgement over a connectionless oriented network. According to the teaching, the system uses the device retry logic where the receiver sends out a NACK (**114, FIG. 14**) with a structure format comprising information relating to a bitmap of a next lost connectionless-oriented data packets (**204, 208, 212, 216, FIG. 14**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teachings of Earl and Traversat et al to include a bitmap of lost connectionless-oriented data packets in the receiver report as taught by Coffman. One is motivated as such in order to minimize the transmissions required from the server (**paragraph 0151**).

Regarding claim 12, Earl teaches the apparatus as claimed in claim 11, wherein the NACKR packet (**i.e., dropped packet**) includes a lowest sequence number of one of retransmitted connectionless-oriented data packets (**paragraph 0072, lines 7-16**; upon receipt of the NACK packet indicating the lowest sequence number of the dropped packet, the sender retransmits the packet with that sequence number to the receiver). Earl and Traversat et al fail to explicitly teach the NACKR packet also includes a bitmask of a next retransmission data packet. Coffman teaches a system for providing sequencing and delivery acknowledgement over a connectionless oriented network. According to the teaching, the system uses the server retry logic where the sender sends out a NACKR (**114, FIG. 14**) with a structure format comprising information relating to a bitmap of next retransmission packet (**204, 208, 212, 216, FIG. 14**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teachings of Earl and Traversat et al to include information relating to a bitmap of next transmission data packet in the NACKR as taught by Coffman. One is motivated as such in order to minimize the transmissions required from the receiver and to conserve battery power for the receiver (**paragraph 0146**).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

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See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be **faxed** to (571) 273-8300 or **mailed** to:

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khuong Tran, whose telephone number is (571) 270-3522. The examiner can normally be reached Mon-Fri from 7:30AM - 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah, can be reached at (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/K. T./

May 15, 2008

/Chirag G Shah/
Supervisory Patent Examiner, Art Unit 2619